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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,443	04/13/2004.	Richard W. Wien	87471F-P	4807

7590 08/21/2007  
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EXAMINER
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HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
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1724

MAIL DATE	DELIVERY MODE
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08/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/823,443

Applicant(s)

WIEN ET AL.

Examiner

Peter A. Hruskoci

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1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on the papers filed 6/26/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) 39 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-18 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

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|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                                  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

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Newly submitted claims 39 and 40 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The container of claims 39 and 40 can be used in a materially different method from method claims 1, 2-18, and 38, such as a disinfection method.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 39 and 40 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-18 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell et al. 5,854,303 in view of Teumac et al. 6,465,065. Powell et al. disclose (see col. 5 line 24 through col. 8 line 34) a method of removing metal ions from a solution with a chelating or sequestering agent substantially as claimed. It is submitted that the containers made of the polymers incorporating polyvalent cation chelating agents as in Powell would appear to include a metal-ion sequestering or chelating agent immobilized on at least a portion of an internal surface as in the instant method. The claims differ from Powell et al. by reciting steps for filling, closing, and shipping the container. Teumac et al. disclose (see col. 7 line 13 through col. 11 line 45) that it is known in the art to utilize a polymeric carrier including a polycarboxylic acid chelate composition in a coating or liner for a container or bottle, or in a cap for closing an opening for

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filling or dispensing a beverage or pharmaceutical product. It would appear that the containers of Powell et al. and Teumac et al. can be shipped for use of the solution or product, and the solutions or product would include the recited pH, respectively. It would have been obvious to one skilled in the art to modify the method of Powell et al. by including the recited steps for filling, closing, and shipping, in view of the teachings of Teumac et al., to aid in contacting the sequestrant with the liquid in the container. The specific stability constant of the sequestering agent, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific liquid treated and results desired, absent a sufficient showing of unexpected results. With regard to claim 38, it is submitted that Teumac as applied above, disclose the use of a plurality of polymer films or barrier layers which are permeable to oxygen and water, and would appear to block microorganisms from passing therethrough.

Claim 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell et al. in view of Teumac et al. as above, and further in view of Cook. The claim differs from the references as applied above, by reciting that the sequestering agent comprises specific derivatized nanoparticles having an attached metal-ion sequestrant. Cook disclose (see col. 10 line 5 line 41 through col. 15 line 45) that it is known in the art to utilize chelating agents anchored to nanoparticles to form protective coating for surfaces. It would have been obvious to one skilled in the art to modify references as applied above, by including the recited derivatized nanoparticles in view of the teachings of Cook, to aid in forming a protective surface for the container.

Applicants allege that Powell does not disclose immobilized sequestering agent as claimed in claim 1. It is submitted that the containers made of the polymers incorporating

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polyvalent cation chelating agents as in Powell would appear include a metal-ion sequestering or chelating agent immobilized on at least a portion of an internal surface as in the instant method. Furthermore, applicants have not presented sufficient comparative evidence with Powell to support the above allegation.

Applicants argue that Powell does not disclose a barrier layer permitting water to pass therethrough but blocking microorganisms as recited in claim 38. It is submitted that Teumac as applied above, was used to teach that it is known in the art to utilize a plurality of polymer films or layers in a container, which are permeable to oxygen and water. It is submitted that the polymer films or layers utilized in Teumac would appear to include a barrier layer which would block microorganisms from passing therethrough as in the instant method.

Claim 1 properly written to include claims 17 and 18, and to recite that the polymeric layer contacts said liquid, and is permeable to water, would be allowable.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Peter A. Hruskoci  
Primary Examiner  
Art Unit 1724

8/13/07